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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,701	12/14/2001	Li-Wen Chen	52719.00036	5723

7590 01/30/2004

Charlie Kulas
Carpenter and Kulas, LLP
1900Embarcadero Road
Suite 109
Palo Alto, CA 94303

EXAMINER	
NGUYEN, CINDY	
ART UNIT	**PAPER NUMBER**
2171	

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/017,701	CHEN ET AL.	
	Examiner	Art Unit	
	Cindy Nguyen	2171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 June 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4, 5*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

This is in response to application filed on December 14, 2001 in which claims 1-28 are presented for examination.

1. *Information Disclosure Statement*

The information disclosure statement filed on 12/14/01 and 8/19/02 are in compliance with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. Because it has been placed in the application file, and the information referred to therein has been considered as to the merits.

2. Specification

The disclosure is objected to because the information regarding related applications have to be completed (i.e application serial number at page 1). Appropriated correction is required.

3. Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the claimed invention is directed to non-statutory subject matter.

Claims 27 and 28 are rejected under 35 U.S.C. 101 because the claims are not useful in technical art therefore they are non statutory and also they have non-function description material and function relationship. This differs, for instance, from a computer implemented method.

4. Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 20 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 20, they are not clear to the Examiner, whether the first database means in the first schema database or a particular database?

Claims 2-19 and 26 are depended on claim 1 therefore also rejected.

Regarding claim 28, It is not clear to the Examiner, what it means "information organized"

5. Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by Pouschine et al. (U.S 5918232) (Pouschine).

Regarding claim 23, Pouschine discloses: An apparatus, comprising: means for generating one or more virtual schemas (104, fig. 6 and corresponding text, Pouschine, and 104 is a schemas contains the physical table configuration and relationship between tables of data therefore it is virtual schemas) including at least a portion of data input from a source (col. 14, lines 20-23, Pouschine); means for generating mapping rules controlling data movement into a data warehouse (16, fig. 6 and corresponding text, Pouschine); means for holding the virtual schemas and mapping rules (col. 14, lines 25-33, Pouschine); means for generating one or more

analysis functions based upon the virtual schemas and data input (col. 14, lines 20-63, Pouschine).

7. Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-4, 13-22, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pouschine et al. (U.S 5918232) (Pouschine) in view of Li et al. (U.S 20020198891) (Li).

Regarding claim 1, Pouschine discloses: A method, comprising: receiving a first schema database (106, fig. 6 and corresponding text, Pouschine); forming a virtual schema including at least a portion of a dataset included within the first database (col. 15, lines 21-28, Pouschine); receiving a first input indicating a criteria (col. 14, lines 20-63, Pouschine); displaying one or more indicators associated with the one or more groupings on an n-dimensional presentation (col. 14, lines 1-19, Pouschine).

However, Pouschine didn't disclose: aggregating data of the database into one or more groupings in accordance with the virtual schema and the first input indicating the criteria. On the other hand, Li discloses: aggregating data of the database into one or more groupings in accordance with the virtual schema and the first input indicating the criteria (page 6, paragraphs 100-101, Li). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include aggregating data of the database into one or more groupings in accordance with the virtual schema and the first input indicating the criteria in the system of

Pouschine as taught by Li. The motivation being to enable the system structures meta information in difference group schemas (page 6, paragraph 0108, Li).

Regarding claim 2, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Pouschine/Li discloses: further comprising: receiving a second input indicating one or more regions; storing the second input as a spatial-object meta data (page 6, paragraph 102, Li); and aggregating the groupings based upon the spatial-object meta data (page 5, paragraphs 0089-0093, Li).

Regarding claim 3, all the limitations of this claim have been noted in the rejection of claim 2 above. In addition, Pouschine/Li discloses: further comprising: displaying one or more indicators associated with the one or more groupings in a region associated therewith on an n-dimensional presentation (page 5, paragraphs 0089-0092, Li).

Regarding claim 4, all the limitations of this claim have been noted in the rejection of claim 2 above. In addition, Pouschine/Li discloses: wherein the region comprises at least one of: a polygon, a circle, a rectangle, an ellipse, and an animal home range (216, fig. 2, Li).

Regarding claim 13, all the limitations of this claim have been noted in the rejection of claim 2 above. In addition, Pouschine/Li discloses: further comprising: receiving a third input indicating a one or more redefined regions; storing the third input as a redefined spatial-object

meta data; and aggregating into new groupings based upon the spatial-object meta data (page 6, paragraph 103, Li).

Regarding claim 14, all the limitations of this claim have been noted in the rejection of claim 2 above. In addition, Pouschine/Li discloses: further comprising: redefining the virtual schema based upon the spatial-object meta data (page 6, paragraph 103, Li).

As per claims 15 and 16, all the limitations of these claims have been noted in the rejection of claims 2 and 3. It is therefore rejected as set forth above.

Regarding claim 17, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Pouschine/Li discloses further comprising: receiving a second database (col. 8, lines 57-62, Pouschine); forming a virtual schema including at least a portion of a dataset included within at least one of the first database and the second database (col. 9, lines 8-13, Pouschine); aggregating data of at least one of the first database and the second database into one or more groupings in accordance with the virtual schema and the first input indicating the criteria (col. 14, lines 20-63, Pouschine); and displaying one or more indicators associated with the one or more groupings on an n-dimensional presentation (col. 14, lines 1-19, Pouschine).

Regarding claim 18, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Pouschine/Li discloses further comprising: generating code in accordance with the virtual schema (702, fig. 7 and corresponding text, Li).

Regarding claim 19, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Pouschine/Li discloses further comprising: providing customer centric information to a core of customer data within the database in accordance with the virtual schema (col. 10, lines 47-67, Pouschine).

As per claim 20, all the limitations of these claims have been noted in the rejection of claims 1 and 2 above. It is therefore rejected as set forth above.

Regarding claim 21, Pouschine/Li disclose: A system, comprising: a schema builder 50, fig. 6 and corresponding text, Pouschine) that generates one or more virtual schemas (104, fig. 6, Pouschine) including at least a portion of data input from a source (col. 14, lines 20-23, Pouschine), and generates mapping rules controlling data movement into a data warehouse (16, fig. 6, Pouschine0; a metadata repository operative to hold the virtual schemas and mapping rules (col. 14, lines 25-33, Pouschine); a data warehouse builder (16, fig. 6, Pouschine); a region checker (col. 19, lines 1-16, Pouschine); and an n-dimensional presentation (col. 19, lines 33-60, Pouschine); wherein the data warehouse is defined by at least a portion of the data input, the virtual schemas, the mapping rules, and the analysis functions (col. 14, lines 20-63, Pouschine); a spatial-object data repository (page 6, paragraph 0102, Li).

Regarding claim 22, all the limitations of this claim have been noted in the rejection of claim 21 above. In addition, Pouschine/Li discloses: wherein the source comprises at least one of a plurality of on line transaction (OLTP) databases (col. 11, lines 49-61, Pouschine).

Regarding claim 25, Pouschine/Li discloses: A computer program product, comprising: code for accessing meta data from a repository (col. 14, lines 20-63, Pouschine); code for providing customer activity correlation queries with access to a database of a data warehouse (col. 15, lines 58 to col. 16, lines 5, Pouschine); code for providing customer data analysis functions (col. 13, lines 35-50, Pouschine); code for providing analysis results to at least one of a plurality of business applications (col. 15, lines 58 to col. 16, lines 5, Pouschine); and a computer readable storage medium for holding the codes (20, fig. 6 and corresponding text, Pouschine); code for translating entities from a meta model into a data schema to form a database (page 8, paragraph 0131, Li). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include code for translating entities from a meta model into a data schema to form a database in the system of Pouschine as taught by Li. The motivation being to enable the system includes wrapper provides the necessary schema translation from heterogeneous data sources such as 705, 706 and 707 fig. 7.

Regarding claim 26, all the limitations of this claim have been noted in the rejection of claim 1 above. In addition, Pouschine/Li discloses a customer data analysis report produced according to the method of claim 1 (col. 12, lines 8-26, Pouschine).

9. Claims 5, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pouschine et al. (U.S 5918232) (Pouschine) in view of Li et al. (U.S 20020198891) (Li) and further in view of Michael Gonzales "Seeking spatial intelligence,http://intelligententerprise.com/000120/feat1.shtml provided by Applicant.

Regarding claim 5, all the limitations of this claim have been noted in the rejection of claim 2 above. However, Pouschine/Li didn't disclose: wherein: the second input indicating one or more regions comprises: at least one of: an input from a user, a pre-determined area, a derivation based upon one or more objects on the n-dimensional presentation, and a result of a computation. On the other hand, Gonzales discloses: pre-determined area (table 1, page 2, Gonzales). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include the step for pre-determined area in the combination system of Pouschine/Li as taught by Gonzales. The motivation being to enable the system maps the spatial entity and presenting spatial data across the organization.

Regarding claim 6, all the limitations of this claim have been noted in the rejection of claim 5 above. In addition, Pouschine/Li/Gonzale discloses: wherein: the pre-determined area comprises at least one of: a zip code, an area code, a census tract, a Metropolitan Statistical Area (MSA), a nation state, a state, a county, a municipality, a latitude, and a longitude (table 1, page 2, Gonzales).

Regarding claim 7, all the limitations of this claim have been noted in the rejection of claim 5 above. In addition, Pouschine/Li/Gonzale discloses: wherein: the derivation based upon

one or more objects on the n-dimensional presentation comprises: a region within a specified distance of a power line (distance of location to the warehouse in table 1, page 2, Gonzales).

10. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pouschine et al. (U.S 5918232) (Pouschine) in view of Li et al. (U.S 20020198891) (Li) and further in view of Michael Gonzales "Seeking spatial intelligence,http://intelligententerprise.com/000120/feat1.shtml and further in view of Anderson et al. "Coordinates of a Killer-Geospatial solutions" provide by applicant.

Regarding claim 8, all the limitations of this claim have been noted in the rejection of claim 5 above. However, Pouschine/Li/Gonzale didn't' disclose: wherein the result of a computation comprises: computing an animal home range, the home range providing a region defined by activities of a target; defining within the region a first ellipse; and defining within the region a second ellipse approximately orthogonal to the first ellipse; wherein an area defined by intersection of the first ellipse and the second ellipse provides a greatest probability of finding the target. On the other hand, Anderson discloses: wherein the result of a computation comprises: computing an animal home range, the home range providing a region defined by activities of a target; defining within the region a first ellipse; and defining within the region a second ellipse approximately orthogonal to the first ellipse; wherein an area defined by intersection of the first ellipse and the second ellipse provides a greatest probability of finding the target (page 3, paragraphs 3-4, Anderson). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include the step for computing the activities of a target within the region as claimed in the combination system of Pouschine/Li as

taught by Gonzales. The motivation being to enable the system maps of store and victim locations as well as economic geography theories and showing distance intervals for each store, also using the algorithms to calculate the animal movements (page 3, paragraphs 3-4, Anderson).

Regarding claim 9, all the limitations of this claim have been noted in the rejection of claim 8 above. In addition, Pouschine/Li/Gonzale/Anderson discloses: wherein: the target comprises at least one of: a suspect, who perpetrated criminal acts defined by the data, a customer, who completed transactions in shops defined by the data, a source of biological material, which caused infections in persons defined by the data (page 3, paragraphs 3-4, Anderson).

Regarding claim 10, all the limitations of this claim have been noted in the rejection of claim 2 above. In addition, Pouschine/Li /Anderson discloses: wherein: aggregating the groupings based upon the spatial-object meta data comprises: checking whether data points fall within a common region, and if so, aggregating data represented by the data points (col. 19, lines 1-60, Pouschine).

11. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pouschine et al. (U.S 5918232) (Pouschine) in view of Li et al. (U.S 20020198891) (Li) and further in view of Lucas et al. (U.S 6075530) (Lucas).

Regarding claim 11, all the limitations of this claim have been noted in the rejection of claim 3 above. However, Pouschine/Li didn't disclose: wherein: the n-dimensional presentation

comprises a map. On the other hand, Lucas discloses: wherein: the n-dimensional presentation comprises a map (fig. 3 and corresponding text, Lucas). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include the step for pre-determined area in the combination system of Pouschine/Li as taught by Lucas. The motivation being enable the system provides an opportunity to display the locations of just these units on the map, perhaps to determine the locations where supply warehouses should be established (col. 9, lines 43-51, Lucas).

Regarding claim 12, all the limitations of this claim have been noted in the rejection of claim 11 above. In addition, Pouschine/Li/Lucas disclose: wherein: displaying one or more indicators further comprises: determining an x, y coordinate for each region on the map; displaying at least one indicator associated with the one or more groupings on the map at the x, y coordinate (901, fig. 6 and corresponding text, Lucas).

12. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pouschine et al. (U.S 5918232) (Pouschine) in view of Ostroff et al. (U.S 20020013782) (Ostroff).

Regarding claim 24, Pouschine discloses: A computer program product, comprising: code for providing a user interface (col. 14, lines 1-19, Pouschine); code for generating customer data analysis function code (col. 13, lines 35-50, Pouschine); code for managing creation of the data warehouse (col. 14, lines 20-63, Pouschine); code for defining customer data analysis functions (col. 15, lines 29-57, Pouschine); code for performing data source analysis (col. 15, lines 29-57, Pouschine); code for

planning operations of a customer data analysis environment (col. 14, lines 25-33, Pouschine); and a computer readable storage medium for holding the codes (20, fig. 6 and corresponding text, Pouschine). However, Pouschine didn't disclose: code for scheduling tasks for managing a data warehouse; code for pre-processing data for movement into the data warehouse. On the other hand, Ostroff discloses: code for scheduling tasks for managing a data warehouse (11, fig. 3 and corresponding text, Ostroff); code for pre-processing data for movement into the data warehouse (18, fig. 3 and corresponding text, Ostroff). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include code for scheduling tasks for managing a data warehouse and code for pre-processing data for movement into the data warehouse in the combination system of Pouschine as taught by Ostroff. The motivation being to enable the system uses the scheduler controlling how often the intelligent agent gathers information from each site, how often it loads pages from the site while it is gathering the information (col. 5, paragraph 0066, Ostroff).

13. Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bakalash et al. (U.S 2002/0029207). Data aggregation server for managing a multi-dimensional database and database management system having data aggregation server integrated therein.

Benedikt et al. (U.S 6202063). Methods and apparatus for generating and using safe constraint queries.

Roccaforte (U.S 6636870). Storing multidimensional data in a relational database management system.

Rosensteel Jr. et al. (U.S 6167405). Method and apparatus for automatically populating a data warehouse system.

Israni et al. (U.S 6308177). System and method for use and storage of geographic data on physical media.

14. Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 703-305-4698. The examiner can normally be reached on M-F: 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

CN

Cindy Nguyen
January 10, 2004

WAYNE AMSBURY
PRIMARY PATENT EXAMINER